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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/749,876

12/31/2003

Christopher Gudeman

KOV-012

6305

7590 04/23/2007
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EXAMINER

WALKE, AMANDA C

ART UNIT

PAPER NUMBER

1752

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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3 MONTHS

04/23/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10749,876

Applicant(s)

GUDEMAN ET AL.

Examiner

Amanda C. Walke

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1752

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 December 2006.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-112 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 21,27-63 and 74-112 is/are allowed.
- 6) ☒ Claim(s) 1-20, 22-26, 64-73 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

The petition decision was not available to the examiner until after the previous rejection was mailed, therefore a new rejection follows.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-20, 22-26, 64-73 are rejected under 35 U.S.C. 102(e) as being anticipated by Hanabata et al (6,921,623).

Hanabata et al disclose an active component which is useful for forming minute patterns such as semiconductor integrated circuits using a beam, for example, ultraviolet rays or far-ultraviolet rays (including excimer lasers or the like); a photosensitive resin composition (resist composition) using the same; and a process for forming a pattern using the same. The combination use of an active component and a photosensitive resin composition is attributed to forming high resolution pattern with high sensitivity because of a difference in solubility in a developer between exposed area and non-exposed area, wherein a functional group is introduced into the active component [e.g., a fine or finely divided particle (an active particle) capable of being hydrophilic by eliminating a hydrophobic leaving group owing to at least light exposure, a specific metal alkoxide (an active metal alkoxide) or the polycondensate thereof (an active

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particle formed by polycondensation)] to cause (yield) a difference in solubility owing to light exposure, and that the combination use of the metal alkoxide or a polycondensate thereof, and a photosensitive resin composition, is attributed to forming high(er) resolution pattern with higher sensitivity because of reduction of impurity incorporation. The present invention was accomplished based on the above findings. The claimed particle appears to meet the instant claim limitations, thus the instant claims are anticipated.

3. The following is a statement of reasons for the indication of allowable subject matter:

Claims 21, 27-63, 74-112 are indicated as containing allowable subject matter as the prior art of record fails to teach or suggest and ink as instantly claimed, a compound of claim 21, or method of making materials or compounds corresponding to the ink or compound of claim 21.

Response to Arguments

4. Applicant's arguments filed 12/22/2006 have been fully considered but they are not persuasive. Applicant has again argued that the references fails to teach the instantly claimed properties. While it is permissible to claim a material by its properties, the examiner has stated that the claim simply require a material comprising a and b, the remainder of the independent claim (lines 9 and 10) is drawn to an intended use or method, thus the reference simply must be capable of forming such a pattern or being employed in such a method, and would produce a material having the instantly claimed properties. As discussed by the examiner in the final office action, the reference does teach that M is one of a small group of metals, including those instantly claimed. When M is aluminum or a transition metal, the two compounds a and b would both be present in the material, and the claim limitations would be met as the intended use/method limitation of the claim is not given patentable weight. While applicant has argued that

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the reference would not be capable of forming such a pattern, the reference clearly describes a radiation patternable material comprising a and b, which absent evidence to the contrary is believed to be capable of forming a conductive pattern. The claim as written does not exclude additional components such as the silane coupling agent of Hanabata, which the examiner notes, is an optional additive to the material of the reference. While the applicant argues that the only resins listed by the reference are those discussed on page 14 of the remarks, the examiner notes that the reference further teaches the presence of a DNQ resin as disclosed as preferred on page 34 of the instant specification. Additionally, while applicant states that none of the fine particle carriers P of the reference are considered to be electrically conductive, US 5, 573, 880, teaches that thermosetting electrically conductive resins including polyamides, polyamines, polythiophenes, polypyrroles, polyanililenes, and polyacetylenes are contemplated. Therefore, it is known in the art that polyamides can be employed as electrically conductive resins. Therefore, it is the position of the examiner that the arguments that the material of the reference fails to read on the instant material claims are not persuasive.

The declaration filed with the response has also been considered, but is not found to be persuasive. While, the examiner understands the point that applicant is making, the claims simply (claim 1 is quite broad) require the presence of two compounds, and the reference teaches them. As noted above, the intended use/ method limitation in lines 9 and 10 of claim 1 is not given patentable weight, therefore absent evidence to the contrary, the material is considered to be capable of forming such a layer. It is also noted that the declaration is not commensurate in scope with the instant independent claims, as they independent claims are broad. The examiner has consulted her supervisor, who agrees with this position.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Amanda C. Walke whose telephone number is 571-272-1337.

The examiner can normally be reached on M-R 5:30-4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cynthia Kelly can be reached on 571-272-1526. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Amanda C Walke
Primary Examiner
Art Unit 1752

ACW

March 19, 2007

Amanda C Walke
AMANDA WALLE
PRIMARY EXAMINER 3/19/07